

# **DISTRICT 11**

## **MATERIALS INFORMATION BROCHURE**

**MATERIALS ENGINEERING BRANCH**

**11-SD-15/56  
KP M30.4/M31.4  
KP 14.3/15.3  
11-080931**

# Memorandum

To : LEON EDMONDS  
Office Engineer  
District 11

Date: January 25, 2005

File: 11-SD-15/56  
KP M30.4/M31.4  
KP 14.3/15.3  
EA 11-080931

From : DEPARTMENT OF TRANSPORTATION - DISTRICT 11  
Materials Engineering Branch

Subject: Materials Information Brochure

Attached herewith for your consideration

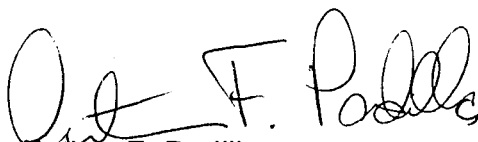
## MATERIALS INFORMATION

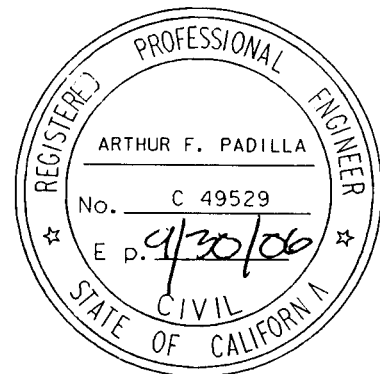
FOR PROPOSED PROJECT ON ROUTE 15 AND ROUTE 56

IN SAN DIEGO COUNTY

## STATE ROUTE 15

**For construction of a portion of Route 15  
In San Diego County**

  
Arthur F. Padilla  
District Materials Engineer



cc: B Valle (09)  
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Project File (mib 080931.doc)

## **MATERIALS INFORMATION**

11-SD-15/56  
KP M30.4/M31.4  
KP 14.3/15.3  
EA 080931

NOTE: Information contained herein has been compiled in accordance with Section 2-1.03 of the Standard Specifications. Additional information is available for review at the District 11, Materials Laboratory, 7177 Opportunity Road, San Diego, California.

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## **MATERIALS INFORMATION**

### **R-VALUE**

The recommended design R-value of <5 is based on a previous Materials Reports dated May 24, 1973.

### **CORROSION ANALYSIS**

As reported in the Materials Reports dated May 24, 1973, the project soils are rated generally as corrosive to metal and reinforced concrete.

### **RECOMMENDED CULVERT ALTERNATIVES**

Plastic pipe may either be Type C corrugated polyethylene pipe or Type S corrugated polyethylene pipe, ribbed profile wall polyethylene pipe or ribbed profile wall polyvinyl chloride pipe.

### **GRADING FACTORS**

As reported in the Materials Reports dated May 24, 1973, removal and recompaction of existing soils to 95% will produce a grading factor of 0.97 or 3.0% shrinkage.

### **EARTHWORK QUANTITIES**

The following earthwork quantities were provided through the Engineer's Estimate.

Roadway Excavation	29,300 m <sup>3</sup>
Imported Borrow	101,000 m <sup>3</sup>
Structural Excavation (Bridge)	1,054 m <sup>3</sup>
Structural Excavation (Type D)	910 m <sup>3</sup>
Structural Excavation (Retaining Wall)	19,940 m <sup>3</sup>
Structural Backfill (Bridge)	1,255 m <sup>3</sup>
Structural Backfill (Retaining Wall)	27,865 m <sup>3</sup>
Pervious Backfill Material (RW)	1,344 m <sup>3</sup>

**EARTHWORK QUANTITIES (con't)**

Sand Backfill	32 m <sup>3</sup>
Ditch Excavation	100 m <sup>3</sup>
Class 2 Aggregate Base	18,500 m <sup>3</sup>
Asphalt Concrete (Type A)	13,700 Tonn

## **MATERIALS SOURCES**

A current list of mining operations eligible to sell materials such as aggregates to the State of California in San Diego County, can be found at the following California Office of Mine Reclamation website:

**[www.consrv.ca.gov/omr/ab\\_3098\\_list/010305%20ab3098.htm](http://www.consrv.ca.gov/omr/ab_3098_list/010305%20ab3098.htm)**